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ARCHITECTURAL CRITICISM.

A WORD about criticism. Criticism at best is but the expression of an individual opinion, and an opinion warped and biased by external circumstances. A dramatic critic may, for example, go to see a performance after a poor supper and with a bad cold, and send to his paper an exceedingly unfavorable report. Now I have had poor lunches at times, and not being a Christian Scientist, am not altogether free from colds. In consequence my view point is not always the same. It should always be remembered, as I try to remember, that there is no absolute standard in art, whether it be architecture, painting or sculpture. The quality of an achievement can only be discerned by the consensus of opinion through a long period of time, and strangely enough, it is the popular opinion and not the professional one which ultimately fixes its value. I am not looking for trouble, nor do I believe that the function of criticism is to point out what is bad while passing over

the good points in silence, any more than it is to lavish indiscriminate and fulsome admiration on design which is to me personally, not good.

The author of a building who is worth anything at all does the best he can. It is impossible to judge exactly from drawings how executed work is going to turn out, and often the work on which the most thought and loving care is bestowed proves to be the biggest disappointment of all. Its designer has gotten stale on it, and because he is stale cannot find a view point from which he can properly appreciate either its merits or defects.

Architects are a sensitive lot; the nature of their profession compels them to be, and often an unfavorable criticism of their work hurts them even if they know it to be true. On the other hand criticism which they believe to be false will not and should not influence their design; but before discarding an honest criticism wherever expressed (and the written word is not of necessity wiser than the spoken) with a casual remark that the author is a ——— fool who didn't understand, it should be thoughtfully considered; *there may be something in it.*

The object, then, of these criticisms is to give from a fresh stand-point an opinion of work to which he is too close to form himself, and which he cannot honestly obtain from friends too kind to wound him by a frank expression of their beliefs.

THE completion of its new home marks an epoch in the history of one of our greatest museums, The Boston Museum of Fine Arts, double plate v. The Copley Square building afforded only a very inadequate housing for the beautiful collections, and although its site was central and accessible, the move was inevitable. The building as it now stands will probably be sufficient for a good many years to come, and is so arranged that it can easily be added to and enlarged. This feature, in itself strong, is probably the cause of the design of the exterior appearing so broken. The style chosen is a noble one and both the central bay and the pavilions at the ends are in mass well conceived, and in detail well executed. The scheme as a whole, however, lacks coherence; there is too much detachment between the buildings flanking the pavilions and the central mass, and it does not hang together quite as it should: and the number and size of the windows gives a sense of restlessness which is accentuated by the blackness of the windows in this photograph. We could wish for more wall space and more quietude, and the detail repeats itself so constantly that this restfulness is unaccompanied by what would be its excuse, the interest due to variety. The greatest fault the building has is the looseness of its design. The belt course and the base both carry through, but the cornice drops from the center pavilion to the portions of the building flanking it and again drops on the extreme wings. The fact that the relation between the first story and the second story is in each case good is a remarkable achievement, but was it necessary to drop the cornice?

It is one of the characteristics of modern art to group into a single design ideas selected from different periods. That has been here done, but the flanking wings and the portions of the center at each side of the central pavilion have not had their Italian character sufficiently submerged.

It is true their detail is Neo-Grec rather than Italian, yet their Italian genesis is too plainly evident, and each of the wings is in itself a single design which happens to be built against another building, rather than forms an integral part of the other building. Probably the fact that the roofs of these wings have a valley between them and the main building has something to do with it, but the root of the matter is deeper. The pavilions at the sides of the court are too narrow, and do not form a sufficient link between the portion of the building around the court and the wings. They also suffer in scale by comparison with the central pavilion. The size of the windows again seems to be too large for that of the columns of the pavilion, and the tightness of the detail throughout the entire structure compels the building to stand or fall by its mass and scale. These are uncompromising factors and ones which cannot be too carefully considered.

With the interiors the story is entirely different. The monumental stair-case hall is conceived in a grand way and most nobly executed, while the various exhibition rooms are diversified in character quite according to their purpose, and each is in itself most agreeable. The scheme of having an exhibition room designed in accordance with the objects it contains is, I believe, a comparatively new one in this country. We have had, it is true, a few Pompeian interiors to contain Roman and Greek art objects, and we have had a few exhibition buildings designed to suit their contents, but nothing has hitherto been attempted in such a splendid way as here. The British Museum was, I believe, the first to try this method of showing collections, but it was done in a half-hearted sort of way after the structure of the building was complete and without the real brilliancy of design which distinguishes these rooms.

The Japanese section is a genuine little masterpiece, and should be of the utmost service to American architects, not only as a practical illustration of how to design an exhibition hall, but because it forces to their attention the charming character of Japanese work from which our eclectic art should be able to adopt much of usefulness in residence design. The fascinating little pools are certainly not usually considered within the province of a museum, but since it is eminently the duty of a museum to exhibit its contents to the best advantage, and as so much of Japanese design is of the outdoor sort, with the accompaniment of water, they seem here almost requisite.

Museums nowadays assert their mission to be the raising of the mass of the people to a better appreciation of art, and no one will deny that this result can be better taught by a few objects displayed wide apart and in a proper setting than by the crowding of miscellaneous objects together in such a way that the eye is distracted from the beauty of one thing, by that of its immediate neighbor. The utmost gratitude is due not only to those in charge of the Boston museum for taking this broad and liberal view, but also to the architect by properly providing for its exhibition. There is a Persian proverb which says "A finished book is a thing of God, to which nothing can be added, from it nothing can be taken away." Let us hope that the Japanese room in the Boston museum will be so considered.

The same liberal spacing is evident in the Greek and Roman sculpture section and the arrangement of the casts to avoid confusion of scale and also to indicate their re-

spective position is of remarkable excellence. There are placed two pediment groups, one on the end and the one at the side of the Temple of Aegina. The frieze from the Parthenon is at the distance below which would naturally be covered by the cornice. In the foreground are the figures of Harmodius and Aristogeiton placed as commemorative statues would be, free standing. The room in which they are arranged is of lovely proportion, quiet in color, and of the plainest character, decorated only by the exhibits. In very few instances has there been such absolute harmony between the architecture of the rooms and of the objects displayed as those in this museum.

THE designer of the new Police Headquarters Building, Plates I and II, probably thought that at a police headquarters there had to be something doing every minute. He has accordingly collected together a number of "features of interest" without putting sufficient plain surface behind them to set forth their full value. In spite of this somewhat ungenerous view of the building it has a great deal of charm. We have perhaps grown too accustomed to French design to appreciate a building which, although French in detail, has a likeness to the best of the English public work. Its features of interest are interesting, and it is a question to be very thoughtfully considered as to whether the best type of a building surrounded by the narrow streets of New York is not one which, viewed from any angle, is picturesque, rather than one which in a public park with twenty acres of green lawn around it, would far surpass it. The dome and the lantern which surmounts it are both delightful, the pediments set on the axis of each of its sides are well proportioned and detailed to give the best effect when seen almost from below. The window openings are ample to admit light, and each in itself is of good shape and of proper relation to the others except that those in the attic are somewhat overscaled. As a whole the composition is restless, yet this can be forgiven when the circumstances of its setting are taken into account. It is only with the widest kind of a wide angle lense that the building can be photographed in its entirety, and it is utterly impossible to see it as a whole. While certainly not a great building, it is nevertheless a very pleasing one.

EVERY time a capable architect is given a block of cheap apartments to do, he gets the commission in spite of a very definite feeling on the part of the owner that some of the architects who make a specialty of doing apartment house work for about one per cent. would give him greater value for his money. It is of course true that the owner does save on the architect's commission and occasionally on the cost of the building itself, because the builders know exactly what to expect from the stereotyped apartment house drawings, and they know exactly where to go for the near-Minerva heads and the garlands of lemons and hydrangeas which ordinarily adorn their fronts. The value of an architect who devotes some thought to the solution of the particular problem as presented to him is not at once apparent. The owner cannot see a nickel's increase in rent from a beautiful building, but it is there. Something unique always sells for more than machine-made stuff, and this is as true of space in an apartment building as it is of, let us say, hats. Beside which the class of tenants

attracted by a delightful exterior is greatly superior to the ordinary run and—crowning point—it happens mighty often that the beautiful building costs less than the ugly one. Such was here the case. The Kinko Duplex Apartments, Plates III and IV, built for less price per cubic foot than the usual run of apartment houses renting for the same price per square foot. Mann & MacNeille, the architects, have chosen for the exterior an Italian type, and have worked it out in an American way with a simple and yet logical treatment. The "tapestry" brick work produces variations in color and design on the surface, and the windows are spaced so as to get a maximum of light with a maximum of proportion on the exterior. The handling of brick work has come to be one of the most interesting things about modern architecture, and patterns in brick work are attempted on a great number of our modern brick structures, sometimes the pattern being worked in color, sometimes by projections and sometimes by both, as is here the case. The use of stone is sparing, but what there is is placed exactly; and the details of the balconies and the entrance doors, although simple, are by no means meagre. It is the sort of building that more architects would like to do if they had the chance, and that more owners would like to do if they had the sense.

IN following so closely the typical bank scheme the authors of this First National Bank of Alexandria, Plate VIII, have produced a most delightful building. Its architecture is French of the sort all can admire. The ornament is kept well in its place and does not have the common fault of French work of distracting the eye from the mass. The single great opening gives ample light into the room behind, and the treatment of the stone door-way in the center projecting into the glass work, is most agreeable. The building does not mark an epoch or lead the feet of the architects into new and hitherto untraveled paths, but although of a type which has grown to be very common, it is by no means commonplace because of its excellent mass, the restfulness of its plain surface, and the appropriateness of its detail.

STUDIO apartments are all the rage at the present moment. This is partly owing to the popular admiration for artists (although people don't buy their work) and partly owing to the big studio which accompanies each and which makes a living room so different from the usual cramped kind of city apartment houses. This one illustrated in this number, at 44 Gramercy Park, New York, Plate IX, is agreeable without being distinguished. The windows were of necessity the same size from bottom to top, in itself a tremendous problem, and one which the architect of this building has avoided rather than solved. He has given us a building agreeable in color, without ugly or unpleasing features, with an attractive entrance and a simple and excellent arrangement of balconies. Its value to the architect will be negative rather than positive.

FLORENTINE GROUP.

"KINKO DUPLEX APARTMENT HOUSES."

MANN & MACNEILLE, ARCHITECTS.

THERE was introduced into Brooklyn about three years ago an entirely new type of two-family house. Up to this time the majority of these houses were converted one-family houses and both families had to use the front

door and interior stories and hall in common. The only improvement upon this adopted form of building in the new two-family houses was separate stairs for each family inside the building. Both families, however, still had to use the stoop and main entrance in common.

The lack of inventive genius in the planning of these houses was echoed in their ugly exterior, but owners were afraid any innovation would result in lessened rents and that an architectural design for the exterior would not be appreciated by the public, or warrant in any way the expense of employing architects of high professional standing.

Both of these theories have, however, been proved false by the erection and marked public approval and patronage of the "Kinko" Duplex houses, erected during the last three years on Brooklyn Avenue, St. John's Place and Sterling Place, Brooklyn.

These houses were designed by Mann & MacNeille, architects, who made a very radical departure from old-established styles by giving each family its own front door, street number, porch and walk, stairs and private cellar.

Each of these houses consists of really two independent houses, one above the other. The first family enter on the street level and have a large living room at the front and a dining room and kitchen at the rear. On the second floor, reached by private stairs, they have four bedrooms, a bath and hall, or where desired the two front bedrooms are thrown into one, making a large sitting room and bedroom combined. The second family enter at the street level and ascend by private stairs so cleverly arranged that a person reaches the third floor under the impression that they have climbed only to the second. The third floor has a living room, 19 feet by 12 feet, a hall, 6 feet by 8 feet, a dining room, 12 feet by 11 feet, and a kitchen, 8 feet by 12 feet. Private stairs lead to the fourth floor, planned like the second floor, and to the garden on the roof. This garden is the exclusive property of the second family, and the first family are given the exclusive use of the rear yard.

Deliveries are made through the cellar by means of a dumb-waiter.

While the plan admits of each family having its own furnace in the "Kinko" houses, the heat is furnished by the landlord so that one furnace answers.

While these houses have cost a little more than the cheap speculative houses that try to rival them, the additional cost is due to better materials and workmanship, and is not on account of the special planning, nor the artistic exterior. When I asked Mr. Mann and Mr. MacNeille how they could build these artistic exteriors for no greater cost than the monstrosities around them, they explained that the effect that I liked was produced by the skillful use of inexpensive materials, such as the bonding and jointing of the brick work, the careful proportioning of the openings and the concentration of the ornamental features, which usually consist in their work, of an ornamental treatment of the brick itself. In this case "Tapestry" brick was used.

When the Kings & Westchester Land Co., who are the owners and builders of the "Kinko" houses showed the first plans that Mann & MacNeille prepared, to men in a similar line of business, and to different prospective tenants, the verdict of the majority was against the plans. All manner of objections were raised to the plans and the company were in serious doubt at first whether or not to risk the experiment. They had such confidence in the

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JAPANESE SECTION AND GREEK AND ROMAN SCULPTURE SECTION.

(Continued from page 3)

plans themselves, however, that they did erect six of the houses, and before they were completed had rented every one, and before the families had all moved in there was a waiting list for the next group which they intended to start at once.

The tenants of these houses willingly paid rates greater than any other two-family houses could command, and were a class of people who were far more desirable than found in the other two-family houses.

One apartment house was built adjoining these two-family houses to see if the returns on the investment would be greater than on the property developed for two-family houses. It was found, however, that the apartments rented more slowly and that the return was not so great. This was due mainly to the unfortunate and to a certain extent meaningless restrictions of the Tenement House Department. Plans were actually filed for an apartment house which had as many novel features as the Duplex houses, but these were disapproved on account of the irregularly shaped lot and irregularly shaped courts, although the commissioner at the time he rejected the plans volunteered the statement that he believed they furnished better light and air to the tenants than the plans he was insisting should be followed, but he had no option in the matter since the Tenement House Law was mandatory.

The advantage of the two-family house over every other apartment house is that it does not come under the Tenement House Law, therefore not subject to the meaningless restrictions, which practically compel apartment houses all to be planned along one line.

SELECTING A SITE.

SIDNEY WARREN.

ALMOST as important as the design of the structure itself is the selection of the site which it shall occupy. If the very best result possible is to be obtained this point should receive mature and skilled consideration, and the architect who is to be employed to carry out the work should have a voice in the matter. Unfortunately, he is not often consulted, but is expected to fit his building to whatever position comparative amateurs may have selected for it. In some cases it must be admitted that this is quite unavoidable; there are even circumstances where a certain site is available and none other; but these give no opportunity for choice, and so do not come within our consideration at the present moment. It is one of the unfortunate results of our system of throwing all large architectural works open to competition, that the architect who is eventually to carry the work out can have no voice whatever in the choice of its position. This is selected for him frequently for far other than architectural reasons—because a certain particularly piece of land can be purchased at a cheap rate, or because it is convenient of access.

We have heard a good deal lately of town-planning, and of the opportunity which it offers, when properly carried out, for placing the principal buildings of a community in the best positions. Much is to be said for treating the matter in the other direction, by selecting proper positions for buildings which it is contemplated to erect. Fortunately, such glaring instances of error in this respect as the selection of a narrow piece of land whose length lies north and south for a church are rare, for even the most obtuse of building committees recognize that a church must be built

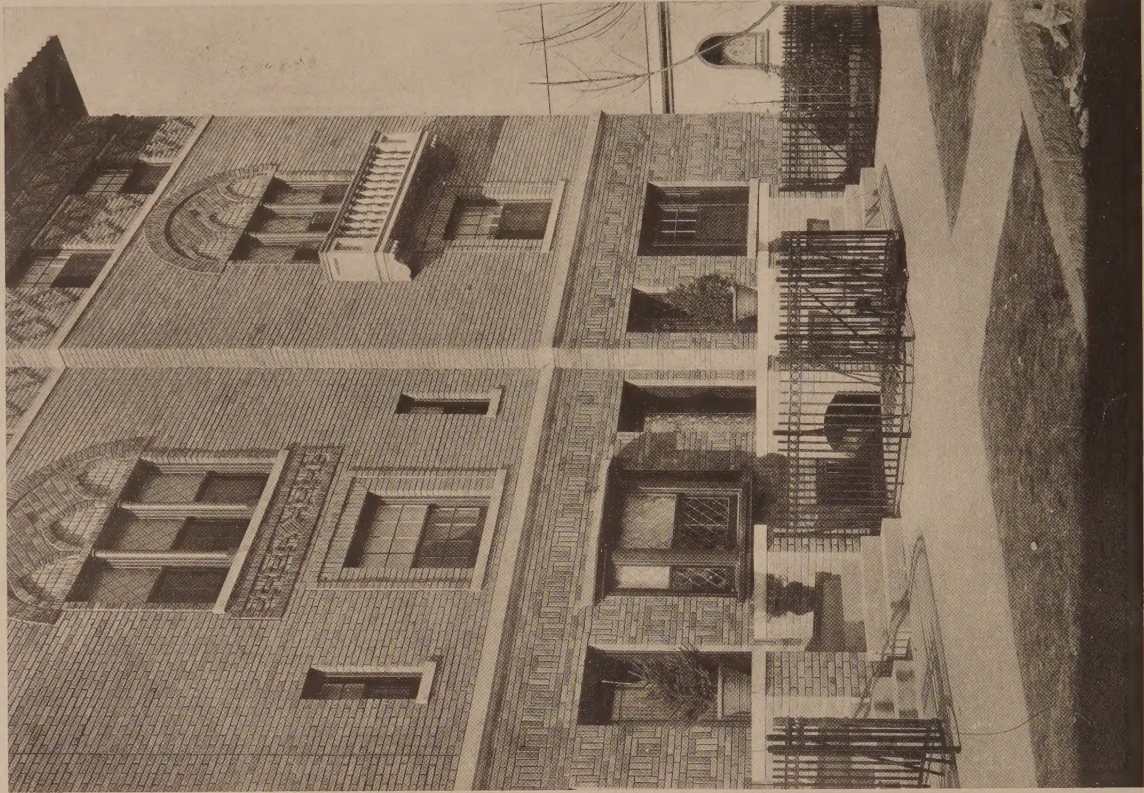
with its greatest length running east and west; but still quite as great mistakes are made in other ways. A tradesman will occasionally elect to build a shop, and to spend much money upon a frontage which is half-hidden, when another site is available in just as good a business locality, but so placed that any architectural embellishment which might be given to it would serve as an advertisement; and occasionally a gentleman desiring to build a suburban residence will select the piece of land upon which it is to be built in the summer time, and forget that he is placing it where it will be exposed to prevailing northerly and easterly winds. These little matters are of such obvious importance that one would have thought that advice upon them was hardly necessary; yet mistakes are sufficiently often made, not always in the same direction, for it to become evident to anyone who has studied the problem that really so many small considerations demand attention that the expert ought to be consulted.

To give our first attention to a church, it may be said that this, besides requiring a piece of land lying longitudinally east and west, must also be so placed that access can be obtained to it by the public preferably from the south and west, so that there need be no door upon the northern or cold side, unless it be merely for entry to a vestry. If it is to be placed in a town, a corner site is undoubtedly the best, except that precedence might be given to a position which was opposite an open space. Not long ago a large church was erected on the top of a hill (an ideal position if it had been in the open country), but surrounded by streets of small houses, so that, although it possesses a tower, it is scarcely seen from anywhere around, and this in spite of provision of ample ground to give it isolation. Distant only about two hundred yards is an open common, adjoining which, at the time it was built, land could have been procured for it, cost being no consideration. Had it been erected there, its architectural beauties—and it is acknowledged to be a good modern church—would have been well displayed, while it would have served equally well for all the purposes of the neighborhood. The nearest church to it, a comparatively indifferent one, designed some fifty years ago, occupies a sharp angle where two roads meet, one of these being continued as a main highway. It is immeasurably better known and a greater architectural asset to the neighborhood than the other, to which it is in reality inferior.

When a municipality contemplates erecting a public building it is generally alive to the importance of properly choosing where it shall stand, and sufficient expert advice is taken at an early period. In cases where it is intended to hold an architectural competition it might further be advisable for the assessor who is to judge the designs to be appointed soon enough to give his advice in this important respect. It has always been acknowledged, for instance, that a town hall should be a central rallying point—the focus, as it were, of the civil life of the community, and generally it is found to be well placed, though examples to the contrary must be known to all of us. Even in Belgium, the home of the Mediæval town hall at its best, although those of Brussels, Audenarde, and Bruges are in excellent positions, this cannot be said for that at Ghent, crowded between mean streets, or even that of Antwerp, placed on the wrong side of the square.

To turn to the country house, with respect to the site

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DETAILS, THE KINKO DUPLEX APARTMENTS, BROOKLYN. (See Plates III and IV).

Mann & MacNeille, Architects.

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for which an architect is, perhaps, more likely to be consulted, even here he is not always allowed a free hand. It is not so long since that an eccentric client wished to build a small mansion on swampy ground within a hundred yards of the sea, and below the level of high tide, with only a dyke intervening which shut out the sea view from all the rooms.

The first consideration in site selecting is the subsoil. The general preference is for gravel or sand; but, except on the score of cost of excavation, there is no serious objection to rock, whether it be limestone, sandstone, or granite. Clay is a good soil, if it is stiff, for building on; but if it underlies a building site, the water fails to permeate, and in the result the land becomes more or less water-logged above, and the country misty, with the accompanying result of a tendency towards rheumatism and kindred ailments on the part of the inhabitants. The question of water is closely allied to that of soil; it is often the last matter thought of by the client, yet it is almost more important than any other. It has been known before now for a house to be built with the idea that a well might be sunk anywhere in the neighborhood and water discovered, and for it to be found afterwards that this was not the case, and that no water supply was available. Very high ground is, consequently, to be avoided, and one of the great objections to choosing a rocky soil is that it is often difficult, if not impossible, to obtain water therein. It is then necessary to trust to a neighboring mountain stream, and this is not always available. Surface wells, it must be remembered, can rarely be trusted to give pure water. If they have to be resorted to they should be sunk upon higher land than any of the drainage, not only from the house in question, but from any other house within a considerable radius, and should be free from all possible contamination. If the water is drawn from pasture land it may generally be considered to be safe; but the right course in all cases is to subject it to a proper analytical test before it is used. Even comparatively deep wells are not always safe, although the filtering action of the earth is, of course, more pronounced—though this is not always so much a matter of depth as of the distance which the water may have traveled before it has reached the well.

From what has been said, it is obvious that a sloping site is preferable to a perfectly level one, and it is best if the hill is towards the north and east of the house, and gently rising, so as to protect it from the bitter winds of winter and early spring, though there are some parts of the country where protection is more needed against some other prevalent wind—as, for instance, that from the south-west on the Atlantic coast. If the ground does not rise, the same amount of protection, or very nearly so, may often be obtained by planting a grove of trees in the proper place to secure protection, or an existing grove may be utilized. It may not always be possible to avoid building with a hill rising on the south; but this would probably necessitate placing the principal rooms on the north, where there is least sunlight, while the hill itself would, of course, obstruct the sun's rays—at any rate, in the morning and evening, and in winter time, when the sun does not rise very high even at mid-day, and when the little sun light that there is has all the greater value in consequence. A southern aspect in this climate of ours is of the very greatest impor-

tance in the selection of a site, and must always outweigh even the consideration of prospect, although everyone who occupies a country house recognizes how important a part a good view from every room plays in making it a delightful place of residence.

Proximity to a town or village, accessibility from the high road, and general ease of communication from the house itself towards, say golf links, or a fishing river, may all have a share in the selection of the site of the country house; but these are not always so much matters for the technical expert as for the owner to bear in mind. An architect, at any rate, will desire that the house shall be so placed that its beauties can be seen.

Without going into further detail, or considering such buildings as hospitals, schools, or libraries, all of which have some peculiar requirements which control the site which is best suited to them, it will probably be admitted that enough has been said to show how important a part the selection of the site plays in all properly considered building schemes. Even if a site has already been chosen before an architect is called in, he should take the earliest possible opportunity of inspecting it for himself and weighing its advantages and disadvantages in an unprejudiced spirit, primarily with the object of doing the best with it as it stands, but not forgetting that he may find some substantial reason for its abandonment entirely—a reason, perhaps, which may have been entirely overlooked by his client, and yet be of the utmost urgency. The impossibility of securing a proper water supply, insuperable difficulties in the proper disposal of sewage, or a subsoil which would either make the building unduly costly or seriously affect the health of the subsequent residents, would all be matters of sufficient importance to warrant the client's attention being drawn to them.

ART AND ARCHITECTURE.

ALBERT MOYER.

THERE is a growing interest among architects and the public in the artistic development of concrete construction. So far the development has been principally along the lines of decorative concrete, concrete bridges, warehouses and factory buildings, due to the fact that the material is more economical and better adapted for this class of work than any other structural material.

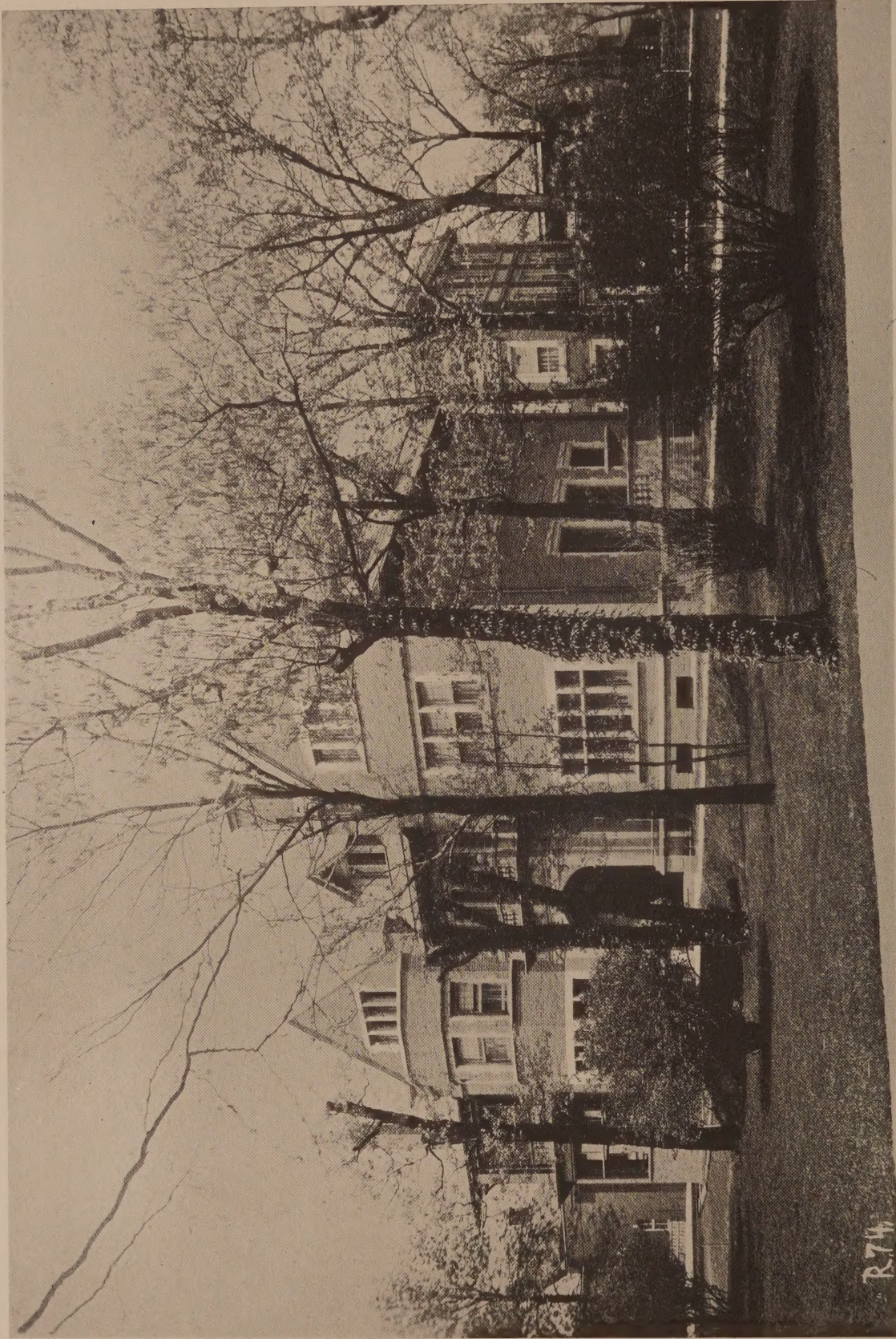
Concrete from the viewpoint of economy and service is also better adapted for other structures, such as residences, walls and fences, but has not been so well exploited, the architects not being in possession of sufficient information and precedent to overcome a certain prejudice against this most excellent material.

This prejudice has been due to some extent to the exploitation of concrete blocks, which are often imperfectly and improperly made and of abominable design, mostly a bad imitation of rock face. This has caused the architects to look askance at concrete block construction for residential purposes.

That concrete is an excellent material for structural work is unquestioned, but that it can be made beautiful to the eye is doubted by most architects. Architecture to be sane and rational in accord with good art, must be designed to meet the requirements of the climate, the habits of the occupants and to secure the most economical use of the available materials.

Wherever concrete is employed and surface marking as

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RESIDENCE, B. F. STONE, CHICAGO.

Kinnear Pressed Radiators.

J. Carbys Zimmerman, Architect.



TRIAL ROOM AND ENTRANCE HALL, POLICE HEADQUARTERS, NEW YORK. (See Plates I and II).

Hoppin & Koen, Architects.



GARDEN FRONT, RESIDENCE, JULIUS LIEBMANN, BROOKLYN. (See Plates VI and VII).

Herts & Tallant, Architects.

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produced by the forms allowed to remain, without attempting to disguise the methods employed, the effect will seem unattractive to the unpractical eye of the majority of people, even though relief is given by the use of colored clay, tile or other colored decoration. It is good for it is honest. That such treatment in time will become interesting and beautiful I have no doubt.

That which the eye has never seen is seldom pleasing; that which is unaccustomed suggests doubt. If, however, the fundamental laws of art are followed, as the eye becomes accustomed the art and the structure become pleasing. Natural cavern homes of earth and ice were the first dwellings; later wattled rude frames were thatched with grass, stamped with earth. The first mud house, as well as baked mud or clay, later called brick, must have been an unpleasant shock to the primitive man who had never seen this form of construction. For that which we have seen for the first time is seldom understood, the memory carrying nothing similar, and with it no imagination. The rude frame thatched or wattled houses must have gradually become pleasing to the eye of the primitive man as they are picturesque to the poetry of to-day. We can trace back through the ages the development of architectural thought.

The binding together of saplings with grass rope or animal skin thongs, were for the purpose of economical construction, the object being to obtain a strong support for a roof, large hewn timber being unknown. Thus we have the image which suggested the fluted stone column. The Doric frieze and cornice were reminiscences of a primitive wood construction. The triglyph (tablet with three vertical channels) suggests the chamfered ends of cross beams of three

planks each. The numerous tent poles supporting the canvas roof of the Arabs and Moors furnished the idea of the slender marble column in myriads supporting the roofs of the mosques and alcazars.

The memory translated one material to another. There was no shock, the eye being intuitively accustomed, the architecture became pleasing, and if of happy design very beautiful. But the reverse applies to the best of art and even to the educated mind *should the development be relatively sudden*, in instances where new and economical structural materials are discovered, such as Portland cement, the eye having been accustomed to massive construction as in heavy stone columns, the development is rapid. In reinforced concrete we do not see the source of strength. It appears to be of slender construction but when properly designed is, in fact, of as great if not greater strength. As soon as the eye becomes accustomed and the mind knows the source of strength, the slender but strong structures become beautiful.

An inhabitant of another planet, if he be differently constructed, and viewing for the first time the most beautiful human being on this earth, might consider such being very ugly, not knowing that the flesh covered bone and muscle, the sources of strength. He might not be able to understand how the being could ever stand on its feet. It is so with reinforced concrete when seen for the first time.

The architectural treatment of concrete as concrete is one matter, and the reproduction of a natural stone is another, so is the employment of concrete blocks still another. By one method we are manufacturing a natural stone by artificial methods, by another we are manufacturing a concrete hollow block to be used as a concrete hollow block, not a natural stone, and not an imitation. When the Greeks

translated wood into stone the form was suggested but the material was obvious. So it should be with concrete, but if used to reproduce a natural stone *then and then only* should the reproduction be architecturally treated as natural stone.

This subject of the architectural treatment of concrete as a structural material may, therefore, be divided into two parts, and when used it should either stand honestly as concrete or should be used to reproduce Nature's products, but in reproducing, if bad workmanship is employed, merely ugly imitation results. This line is rather finely drawn, but we should not become so fanatic as to state that concrete can be used only as concrete.

Quoting from Ruskin: "To cover brick with plaster and this plaster with fresco is perfectly legitimate, the plaster is gesso grounds on panel or canvas, but to cover brick with cement and to divide this cement with joints that it may look like stone, is to tell a falsehood, and is just as contemptible a procedure as the other is noble."

THE ARGENTINE REPUBLIC, BUENOS AIRES. OFFICIAL EXHIBITION OF ART.

AN International Exhibition of Fine Arts will be held in Buenos Aires in 1910, to commemorate the first Centenary of the Independence of the Argentine Republic.

It is the intention to inaugurate this exhibition on the 25th of May, and to keep it open until the 30th of September, 1910, but the date of closing may be postponed by the Executive Committee, in which case the general conditions will still remain in force. In case it might become necessary to put off the opening of the Exhibition for a few days, owing to delay in finishing up the building, due notice to that effect will be given.

The Exhibition will include the following: Painting in oils, water colors, pastel, drawing, sculpture, architecture, decorative art, black and white, a national historical section, bibliography. The two latter are exclusively national.

The inscription of works in order to be valid must be handed in duplicate before the 28th of February to the "Selection Committee," to the Argentine Minister of each country or to the special delegate of the Exhibition, Señor Ernesto de la Cárcova, Avenue de la Opera, No. 32, Paris. All works must arrive in time to be delivered to the Commissary General before the end of April.

THE increasing use of reinforced concrete as a building material has led to numerous investigations of its strength when variously prepared and when subjected to various conditions. Perhaps the most elaborate series of tests that is now being carried on by the United States Geological Survey, which has recently published (Bulletin 344) a preliminary report on the subject. A full report, with a thorough analysis of the results, will be published after the 52-week tests are completed. The attempt has been made to bring out the comparative value of gravel, granite, limestone, and cinders for use in concrete, and the effect of age and consistency on the strength and on the stiffness. No attempt has been made in this preliminary report, however, to generalise the results of the tests, or to draw any conclusions, however warranted they may appear, from an examination of the test data. A running commentary on the results of the tests, however, emphasizing matters of particular interest and indicating a few points that might lead to interesting analyses, is included. The bulletin, which is by Richard L. Humphrey, may be had free of charge on application to Director, U. S. Geological Survey, Washington, D. C.



HALL, RESIDENCE, JULIUS LIEBMANN, BROOKLYN. (See Plates VI and VII)

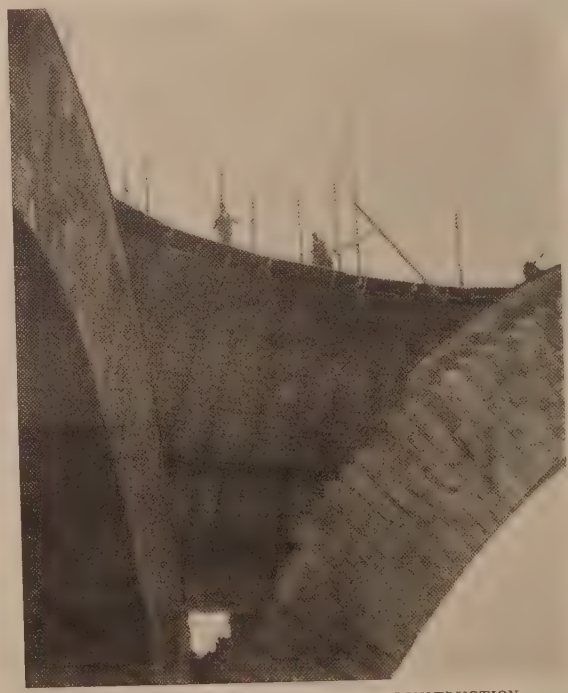
Herts & Tallant, Architects.



VIEW, SHOWING THE PRESENT CONDITION.

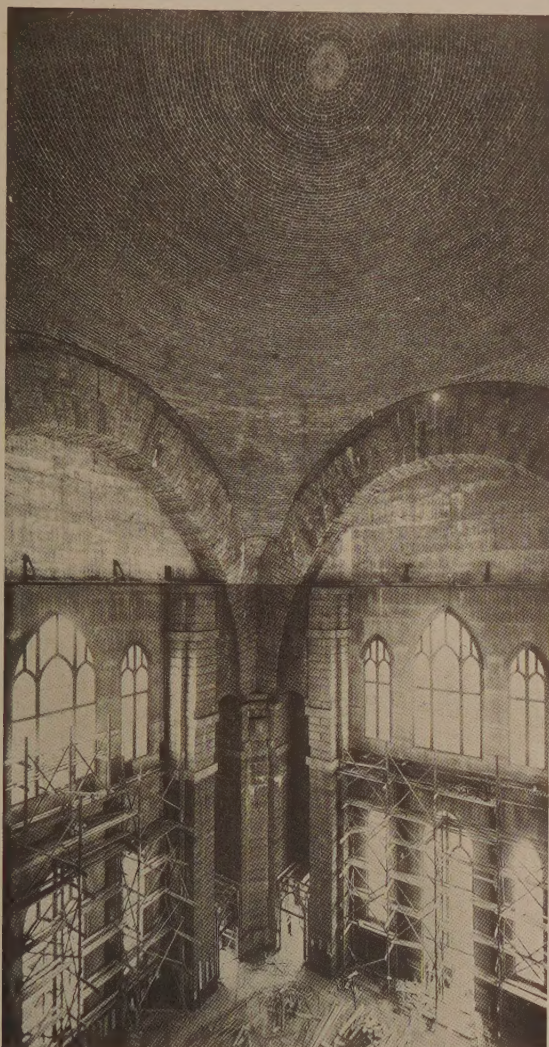


VIEW OF THE MASSIVE ARCHES AND THE STARTING OF THE DOME.



VIEW, SHOWING DOME IN PROCESS OF CONSTRUCTION.

CATHEDRAL OF ST. JOHN THE DIVINE (SHOWING THE GREAT GUASTAVINO DOME), NOW IN COURSE OF CONSTRUCTION AT MORNING-SIDE HEIGHTS, NEW YORK.
Heins & LaFarge, Architects.



VIEW OF INTERIOR, SHOWING THE GREAT ARCHES.

AMERICA'S LARGEST DOME. ERECTED WITHOUT SCAFFOLDING OR FALSEWORK SUPPORT TWO HUNDRED FEET ABOVE THE GROUND.

THE dome just erected over the four great arches of the Cathedral of St. John the Divine, by the Guastavino Company, is an engineering feat that is attracting general attention. This is one of the largest masonry domes in the world, being about 135 feet in diameter, measured across the lower part of its spherical surface. Its crown towers some 200 feet above the floor of the building.

It was built entirely of burnt clay slabs 6 by 15 by 1 inch bonded with Portland cement mortar into a monolithic dome shell of unprecedented thinness. While many somewhat smaller domes have been erected of these materials, this is the first one in the world built without staging or false work of any kind. The work was self-supporting from the beginning.

The work progressed rapidly, and the materials combined and sustained their weight and that of the mechanics without the slightest mishap or irregularity. According to every known theory, it seemed that work erected in this manner would fall of its own weight; but each morning

as the artisans resumed work the material laid the previous day was found to have acquired such rigidity as to be capable of supporting their weight and sustaining the fresh construction as they continued onward toward the top.

This great dome, which was erected in a few weeks' time, compares very favorably in size with the world's largest domes. The greatest of all, the Pantheon at Rome, measures 142 feet in diameter. St. Peter's at Rome and the Duomo at Florence are about 139 feet. At Constantinople there is the dome of St. Sophia's mosque of 115 feet diameter, and the dome of St. Paul's, London, measures some three feet less.

To appreciate the great advance in masonry construction marked by this new cathedral dome, it is necessary only to refer to the history of the erection of the earlier domes mentioned. Years and endless trouble attended the building of these domes, not to mention the expense and loss of life incurred in the preparation of the false work necessary to sustain the work during erection. Even after the dome was constructed the supports had to remain in position until the materials had set.

The dome is six courses of tile in thickness at the base, or about $7\frac{1}{2}$ inches, decreasing to three courses or 4 inches at the top. In comparison with other famous domes its thinness is remarkable. This system of tile construction was invented by the elder Mr. Guastavino, a Spanish architect engineer, who came to this country to practise some thirty years ago.

The Cathedral of St. John the Divine, which will cost about ten million dollars, has been under construction some fifteen years, and will be the largest of its kind in America, being 520 feet in length by 280 in breadth, taking the form of a cross, as is usual in large cathedrals. When completed, it will accommodate ten thousand people.



VIEW OF DOME AND VAULTING, SHOWING DETAIL OF COLUMNS AND GROIN WORK.

THE ARCHITECT OF TO-MORROW.

I THINK of the American architect in times to come not as a great creative artist, but rather as a thoroughly trained director or manager of building enterprises. The increasing pressure for speedy and adequate execution will preclude exhaustive study or tentative experimentation. With continually multiplied requirements, materials and methods of building, study will be mostly summary and experiment will take the form of actual construction. The architect will be surrounded by specialists in design, in construction, in superintendence, in technical research, but will himself be the master mind that organizes and directs those who plan or supervise actual work.

"He will endeavor to attach to his office men who can do in every department of architectural practice better work than he knows how to do himself and will turn their individual capacities to the very best account, giving suitable encouragement and recognition to each and inspiring a common purpose and a concerted effort for the sake of the work and of the office. His services will be paid for largely on the basis of the actual expenses to his office of each piece of work with fees for mere consultation in proportion to the value of his time. He will deserve to exercise a greater moral influence in public affairs than those whose professional career is more limited in place and time.

"The scope of his organized effort will be at least as wide as the nation, and his authority that of a trained continuing executive, a man of varied and large undertakings, with a high sense of duty, and a generous friend of public spirit."—*J. Randolph Coolidge, Jr.*

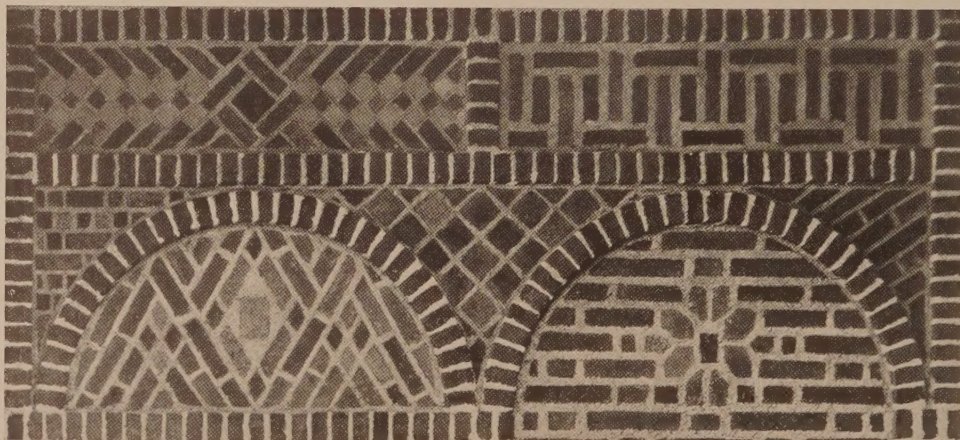
THE ROBERT FULTON MEMORIAL.

THE Robert Fulton Memorial Association has awarded prizes of five hundred dollars each to the following ten architectural firms from sixty-two designs submitted for the Robert Fulton Memorial: J. H. Freedlander, New York; Bosworth & Holden, New York; Robert Scott Olin, Watertown, N. Y.; Heacock & Hokanson, Philadelphia; H. Van Buren Magonigle, New York; Chas. P. Huntington, New York; Robert P. Bellows, H. P. Ripley, J. F. Clapp and O. Faeltan, Associated, Boston; Albert Kelsey and Paul Cret, Associated, Philadelphia; Laurence F. Peck and Ford, Stewart & Oliver, Associated, New York. A second competition comprising these firms is now on, and the final award will be made on February 15, 1910. The committee is considering the advisability of holding an exhibition of the entire original competition after Feb. 15th.

MR. FREDERICK C. BROWNE, architect, of 143 West 125th Street and Mr. Randolph H. Almirot, architect, of 208 Fifth Avenue, have formed a co-partnership under the name of Brown & Almirot, architects, with offices at 3 West 29th Street, New York City, after January 15, 1910.

MR. JOSEPH W. FUHRER has started in the practice of architecture at 75 Eldert St., Brooklyn, and will be pleased to receive catalogs and samples.

SALESMAN WANTED—The Meyer-Sniffen Co. is in need of an additional man in sales department. 11 West 36th Street, New York.



BRICKWORK DETAILS BY

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A NEW BLOUNT DOOR CHECK THAT NOT ONLY SHUTS DOORS AND PREVENTS SLAMMING BUT ALSO HOLDS THEM OPEN WHEN DESIRED.

THE Yale & Towne Mfg. Co., of New York and Stamford, Conn., have placed on the market a "door check and holder" which not only *closes* doors, but, when desired, *holds them open*. The original Check with which you are familiar, performed its work so well that it has remained practically unchanged for many years. They now offer, however, something *really new*.

Hotels, offices, stores, telephone booths, residences—hundreds of doors equipped with Door Checks—have shown the advantage of a door-holder (or "stop"), though there has been up to now no door stop that doesn't work injury to floors and carpets.

Here, included within the Check itself, is a simple device which can be set at a given point, so that when the door is pushed open, there it stays. Then, with a slight pull the door can be released, whereupon the spring operates as though it carried no "stop."

The Company are issuing attractive printed matter bringing this to the attention of the architect, the carpenter and the householder.

The Yale & Towne Blount Door Check was the first and is still the best and most popular liquid Door Check on the market.

In fact, it is a combined Door Spring (for closing the door) and Door Check, or controller (for regulating the closing movement and to prevent slamming).

The improvement above described adds a *third* feature, namely, a "Stop" (or "Holder") whereby the door may be held open until released.

This "Holder" consists of a spring-actuated pin in the main arm, the lower end of which engages with a shoulder or stop on the top cap with sufficient force to hold the door in the open position against the pressure of the coil or spring. This resistance, however, can be overcome by a slight pull or pressure on the door, thereby releasing the latter and leaving it free to close under control of the check. The resistance can be varied at will by adjustment of the screw.

By slightly lifting the end of the spring, which, by means

of a pin, locks the top cap to the shell, the top cap can be rotated to alter the position of the stop, and thereby enable the door to be held open in any desired position. This adjustment is very simple and can be made by anyone either before or after the Check is in place.

The Blount Door Checks with holder are made at present in four sizes corresponding to the same numbers in the regular check.

In a little booklet issued for the information of the intending purchaser the following is said:

"The door check with holder looks almost like any Blount Door Check; but you will notice a little plug (or latch) that lifts up as you open the door. This latch doesn't catch unless you push the door back to a given point (you can set this point to suit yourself). When the latch catches at this point it holds the door open until you give a little pull; not a hard pull, just a little pull. This slips the latch up over the catch that holds it and the door closes gently, firmly and without slamming as all doors close that are operated by Yale & Towne Blount Door Checks."

The printed matter issued to explain the operation of this Check (and sent free to hardware dealers who carry it in stock) is wonderfully attractive and should do much toward popularizing this simple, yet extremely useful, addition to the door check.

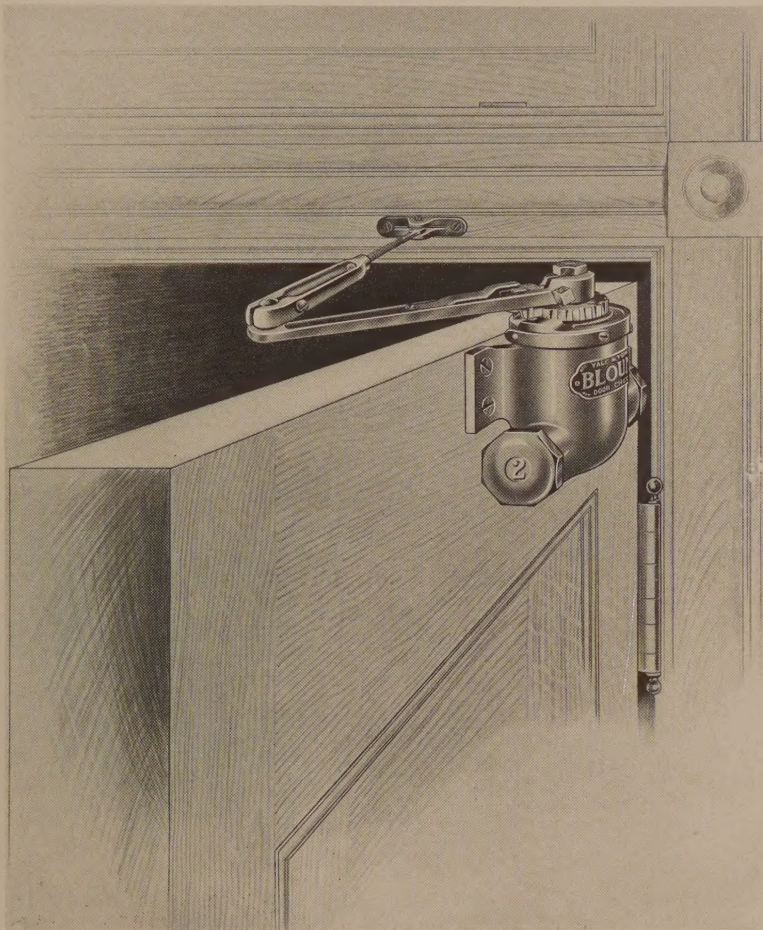
AN extremely novel and useful night lock has also recently been placed upon the market by the same company. It is referred to in the printed matter introducing it as "a 24-hour lock."

We quote from the folder as follows

addressed to users: "If you have an office—open all day and locked all night; or a store—in fact any door where the lock is a nuisance in the day time and a necessity after dark—here is the lock for you.

"The 'Yale Ninety' is a sturdy rim lock, with a heavy, solid, dead bolt that springs locked when you want it to, but which can only be unlocked from the *outside* by its key (*inside* there is a knob that unlocks it). You may go home and take your key with you. The office boy, by simply shutting the door, locks it.

"In the No. 90 when you turn the key the bolt stays back just as in any dead lock. But there is a little button. Push this down, and when the door closes the bolt springs firmly forward, solidly locking (not just latching) your door."



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